THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE HONORABLE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Application of

Michael Lee

Application No.: 10/619,295

Filed: July 14, 2003

For: GOLF IRON

Examiner: Stephen Luther Blau

Docket No.: NKTZ 2 00061

BRIEF ON APPEAL

Appeal from Nickent Golf Equipment Co.

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I. REAL PARTY IN INTEREST

The real party in interest for this appeal and the present application is the inventor Michael Lee.

II. RELATED APPEALS AND INTERFERENCES

There are no prior or pending appeals, interferences or judicial proceedings, known to Appellant, Appellant's representative, or the Assignee, that may be related to, or which will directly affect or be directly affected by or have a bearing upon the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 6, 7, 9, 10, 20, 22, 23, 26 and 27 are on appeal.

Claims 6, 7, 9, 10, 20, 22, 23, 26 and 27 are pending.

Claims 6, 7, 9, 10, 20, 22, 23, 26 and 27 are rejected.

IV. STATUS OF AMENDMENTS

An Amendment After Final Rejection was filed on October 19, 2006. By an Advisory Action mailed October 30, 2006, it was indicated that the requested amendments had been entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Appellant's claims are directed a golf club head that looks like a muscle back iron from the exterior, but the club head includes a cavity. As stated in Appellant's BACKGROUND OF THE INVENTION, muscle back irons require more consistent ball striking capability to play well using them. Therefore, many golfers feel a sense of prestige carrying muscle back irons. A muscle back iron does little good in one's golf

bag, however, if one cannot consistently strike the ball well. Accordingly, the inventor developed a golf club that has the look of a muscle back iron while providing the forgiveness of a cavity back iron. The references that have been provided by the Examiner fail to teach or suggest such a golf club head.

Claim 20 defines a golf club head. With reference to FIGURES 1 and 2, a golf club head 10 includes a sole 18, a top edge 16 opposite the sole, a hosel 20, and a front surface 12 defining a strike face 26. See page 3 lines 16-19. The golf club head 10 also includes a rear surface 14 (FIGURE 1) opposite the front surface 12. With reference to FIGURE 5, which shows a cross section taken at line 5-5 in FIGURE 2, the rear surface 14 includes a blade surface 32 and a muscle back surface 30. The blade surface 32 is near the top edge 16 and substantially parallel to the front surface 12. The muscle back surface 30 is near the sole 18 and has no visible cavity thereon. A muscle back portion 34 is interposed between the front surface 12 and the muscle back surface 30. See page 3, lines 25-27. The muscle back portion 34 defines a cavity 38 and the cavity is not visible from the exterior of the golf club. See FIGURE 1. The muscle back portion also includes an extra mass portion and a substantial portion of the extra mass portion is positioned below the cavity. See FIGURE 5 and paragraph bridging page 4-5. Additionally, an elastomer material 42 at least substantially fills the cavity and has a specific gravity less than the material displaced by the cavity. See FIGURE 5 and page 5, lines 12-17.

Claim 22 also defines a golf club head 10 including a sole 18, a top edge 16, a hosel 20, a front surface 12 defining a strike face 26, a rear surface 14 opposite the front surface 12, a muscle back portion 34, and an insert 42. See FIGURE 5. The rear surface 14 includes an at least substantially flat blade surface 32 and a contoured

muscle back surface 30. See FIGURE 5. The blade surface 32 extends to the top edge 16. The muscle back surface 30 is near the sole 18. The muscle back portion 34 is interposed between the front surface 12 and the muscle back surface 30. The muscle back portion 34 defines a cavity 38 disposed in the muscle back portion 34. See FIGURE 5. The cavity 38 is not visible from the exterior of the golf club. See FIGURE 5. A large portion of the muscle back portion is positioned under the cavity. See FIGURE 5. An insert 42 comprising a high-rebound material is disposed in the cavity 38. See page 5, line 13.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following grounds of rejection are presented for review:

Claims 6, 7, 9, 10, 20, 22, 23, 26 and 27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Elkins '558 (U.S. Design Patent No. D244,558) in view of Elkins '242 (U.S. Patent No. 4,128,242), Viollaz (U.S. Patent No. 5,447,311), and Motomiya (U.S. Patent No. 4,438,931).

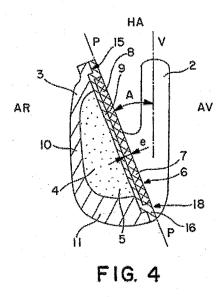
VII. ARGUMENT

A. Claims 6, 7, 9, 10, 20, 22, 23, 26 and 27 Would Not Have Been Obvious Over Elkins '558 in View of Elkins '242, Viollaz and Motomiya

1. Claim 20

Claim 20 recites "a cavity disposed vertically towards an upper portion of the extra mass portion." The August 16, 2006 Office Action states that Viollaz discloses "a substantial portion of the extra mass portion being positioned below cavity in the form of the bottom cavity wall being a substantial greater thickness than the top cavity wall."

This is not the same as nor does it render obvious a cavity disposed vertically towards an upper portion of the extra mass portion.



Viollaz in FIG. 4 shows an internal cavity that is centered with respect to the face of the golf club head – the cavity is not disposed vertically towards an upper portion of the extra mass portion. Other than the cavity having a general triangular shape, as seen in cross-sections along planes perpendicular to the hitting plane (col. 1, lines 64-66), nothing much else is taught with regard to the location of the cavity in Viollaz. Accordingly, one skilled in the art would simply rely on the figures of Viollaz, which show that the cavity is centered in any arguable muscle back portion found in Viollaz as opposed to being disposed toward an upper portion of the muscle back portion. Accordingly, the Examiner's proposed combination fails to teach or suggest each limitation presented in claim 20.

Additionally, neither Elkins reference discloses "a cavity disposed vertically towards an upper portion of the extra mass portion." As discussed in the paragraph bridging pages 4 and 5 of the Applicant's disclosure, "a large portion of the muscle back portion can be positioned under the cavity so that mass is still concentrated towards the

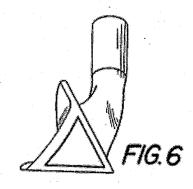
bottom of the club head, thus aiding the ball to get airborne after contact." This combines the advantage of the muscle back, i.e. more quickly airborne, with the advantage of a cavity back, i.e. lateral forgiveness, in a golf club that from its exterior looks like a muscle back. This has yet to be done before.

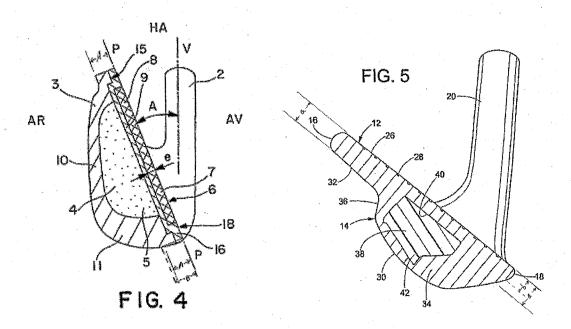
2. Claim 22

Claim 22 recites "a large portion of the muscle back portion is positioned under the cavity so that mass is still concentrated towards the bottom of the club head." The final Office Action states that in view of Viollaz it would have been obvious to modify the head of Elkins '558 to have a substantial portion of the extra mass portion being positioned below the cavity to have a more rounded intersection where the rear surface and the sole surface intersect and as such have a head with less interaction with the ground when impacting the back of the sole with the ground when impacting a ball on the ground and still have a weighted sole section. See bottom of page 4 to top of page 5 of final Office Action. Both Elkins '558 and Elkins '242 teach a "wide 'sweep' sole 50 is provided with each club in the correlated set to lower the center of gravity of each clubhead thus increasing the effective loft of the club at impact without significant sacrifice in the distance of carry of the golf ball." Elkins '242 col. 12, line 65 - col. 13, line 2. In other words, it appears that Elkins '242 teaches away from a more rounded intersection where the rear surface and the sole surface intersect and instead teaches the sweep sole that is disclosed in FIG. 7 which appears to teach placing weight rearwardly of the hollow portion, such as in the region near reference number 14a in FIG. 7. Viollaz provides no discussion on this matter. Accordingly, it appears that one skilled in the art taking into account the teachings of both Elkins patents and Viollaz

would not modify the club head in Elkins '558 to include a large portion of the muscle back portion positioned under the cavity.

Claim 22 also recites "a distance between the front surface and the rear surface adjacent the top edge being greater than a distance between the front surface and the rear surface adjacent the sole."





As shown above, Elkins '558 discloses a wide sweep sole that is further discussed in Elkins '242. Accordingly, the distance between the front surface and the rear surface adjacent a top edge is much less than the distance between the front surface and the rear surface adjacent the sole. Even though Elkins '558 may disclose a point at the front of the intersection between the front face and the sole, the sole is very

wide at the bottom of the club head. As seen in Viollaz (FIGURE 4 of Viollaz as copied above with additions to the figure being added) the distance between the front surface and the rear surface adjacent the top edge, shown as distance A in marked up Figure 4. is less than a distance between the front surface and the rear surface adjacent the sole, depicted as dimension B in marked up Figure 4. In contrast, in Applicants club the distance between the front surface and the rear surface adjacent the top edge, depicted as dimension a, is greater than the distance between the front surface and the rear surface adjacent the sole depicted as dimension b. Accordingly, this limitation is not found in any of the references cited in the final Office Action. Moreover, Applicants respectfully submit that one skilled in the art would not modify any of the references to have such a configuration. In view of this, Applicants respectfully submit that claim 22 defines over the cited references.

CONCLUSION

For all of the reasons discussed above, it is respectfully submitted that the rejections are in error and that claims 6, 7, 9, 10, 20, 22, 23, 26 and 27 are in condition for allowance. For all of the above reasons, Appellants respectfully request this Honorable Board to reverse the rejections of claims 6, 7, 9, 10, 20, 22, 23, 26 and 27.

Respectfully submitted,

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APPENDICES

VIII. CLAIMS APPENDIX

Claims involved in the Appeal are as follows:

- 1-5. (Canceled).
- 6. (Previously Presented) The golf club head of claim 20, wherein the muscle back surface includes an upper ledge that generally follows the contour of the top edge.
- 7. (Previously Presented) The golf club head of claim 20, wherein the cavity is vertically spaced from the sole.
 - 8. (Canceled).
- 9. (Previously Presented) The golf club head of claim 20, wherein the elastomer comprises a polyurethane elastomer.
- 10. (Previously Presented) The golf club head of claim 20, wherein the muscle back portion covers at least half of the surface area of the rear surface.
 - 11-19. (Canceled).
 - 20. (Previously Presented) A golf club head comprising:
 - a sole;
 - a top edge opposite the sole;
 - a hosel;
 - a front surface defining a strike face;
- a rear surface opposite the front surface, the rear surface including a blade surface and a muscle back surface, the blade surface being near the top edge and substantially parallel to the front surface, the muscle back surface being near the sole and having no visible cavity thereon;

a muscle back portion including an extra mass portion interposed between the front surface and the muscle back surface and defining a cavity disposed vertically towards an upper portion of the extra mass portion, wherein the cavity is not visible from the exterior of the golf club and a substantial portion of the extra mass portion being positioned below the cavity; and

an elastomer material at least substantially filling the cavity, wherein the elastomer material has a specific gravity less than the material displaced by the cavity.

21. (Canceled).

- 22. (Previously Presented) A golf club head comprising:
- a thin sole;
- a top edge;
- a hosel;
- a front surface defining a strike face;

a rear surface opposite the front surface, the rear surface including an at least substantially flat blade surface and a contoured muscle back surface, the blade surface extending to the top edge and the muscle back surface being near the sole, a distance between the front surface and the rear surface adjacent the top edge being greater than a distance between the front surface and the rear surface adjacent the sole;

a muscle back portion interposed between the front surface and the muscle back surface and defining a cavity disposed toward an upper portion of the muscle back portion, such that a large portion of the muscle back portion is positioned under the cavity so that mass is still concentrated towards the bottom of the club head, wherein the cavity is not visible from the exterior of the golf club; and

an insert comprising a high-rebound material disposed in the cavity.

23. (Previously Presented) The golf club head of claim 22, wherein the blade surface is at least substantially parallel to the front surface.

24-25. (Canceled).

- 26. (Previously Presented) The golf club head of claim 22, wherein the insert comprises a liquid, a foam or a compressible material.
- 27. (Previously Presented) The golf club head of claim 20, wherein the distance between the front surface and the rear surface adjacent the sole is less than the distance between the front surface adjacent the top edge.

IX. EVIDENCE APPENDIX NONE

X. RELATED PROCEEDINGS APPENDIX NONE